

**REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 2 and 14 are requested to be cancelled. Claims 1, and 9, 12, 13, 15, and 16 are currently being amended.

This amendment changes and deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Figure 5 has been amended to change an error in the text of step S201. The text was changed to read “Turn on” instead of “Turn off.” This change has been made to be consistent with the description on page 13, lines 20-22.

Claims 1-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by Takahashi et al. (U.S. Patent No. 4,777,512). Claim 1, as amended, recites that an image forming apparatus comprises a latent image formation portion which forms an electrostatic latent image on a photoreceptor based on an inputted image signal, a development portion which causes a toner to adhere on the electrostatic latent image formed on the photoreceptor, to develop a toner image, a transfer portion which transfers the toner image onto a paper sheet, a carriage portion which carries the paper sheet, a residual quantity detecting portion which detects a toner residual quantity of the development portion, and a first detecting portion which detects the toner residual quantity by using the residual quantity detecting portion during printing. The image forming apparatus further comprises a second detecting portion which stops supply of power to the transfer portion when shortage of the toner residual quantity is detected by the first detecting portion, and again detects the toner residual quantity by using the residual quantity detecting portion, and a supply portion which supplies the toner to the development portion when the shortage of the toner residual quantity is detected by the second detecting portion.

Takahashi discloses that during a copying operation, a toner content controlling system checks whether the toner content of the developer in the developer container 4 is at a predetermined level or not, and the copying operation is carried out if it is at the predetermined level (col. 8, lines 16-22). If the toner content is not at the predetermined level, the copying operation is stopped for a predetermined period, an indication is displayed on the console of the apparatus, and a toner replenishing operation is performed until the toner content reaches the predetermined level (col. 8, line 60 – col. 9, line 3).

In contrast to claim 1, Takahashi fails to disclose or suggest a second detecting portion which stops supply of power to the transfer portion when shortage of the toner residual quantity is detected by the first detecting portion, and again detects the toner residual quantity by using the residual quantity detecting portion. Rather, as discussed above, Takahashi stops the copying operation when the toner content is first detected as not at the predetermined level and does not again detect the toner residual quantity. In fact, Takahashi only discloses stopping the copying operation but does not disclose or suggest stopping the supply of power to the transfer portion, as required by claim 1.

Takahashi also fails to disclose or suggest a supply portion which supplies the toner to the development portion when the shortage of the toner residual quantity is detected by the second detecting portion. Rather, as discussed above, Takahashi replenishes toner in response to first detecting the toner content below the predetermined level, not after stopping the supply of power and again detecting a shortage in the toner residual quantity, as required by claim 1. Moreover, the supply of toner in Takahashi is performed continuously, not in response to detecting that the toner content is below a predetermined level. Accordingly, for all of these reasons, claim 1 is patentably distinguishable from Takahashi.

Claims 3-11 are patentably distinguishable from Takahashi by virtue of their dependence from claim 1, as well as their additional recitations. Claims 12-13 and 15-18 are patentably distinguishable from Takahashi for reasons analogous to claim 1.


Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.


The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 1/13/06

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Amendments to the Drawings:

The drawing sheet attached in connection with the above-identified application containing Figure 5 is being presented as a new formal drawing sheet to be substituted for the previously submitted drawing sheet. The drawing Figure 5 has been amended. Appended to this amendment is an annotated copy of the previous drawing sheet which has been marked to show changes presented in the replacement sheet of the drawing.

The specific change that has been made to Figure 5 is to change “Turn off” to “Turn on,” which is consistent with the description on page 13, lines 20-22.

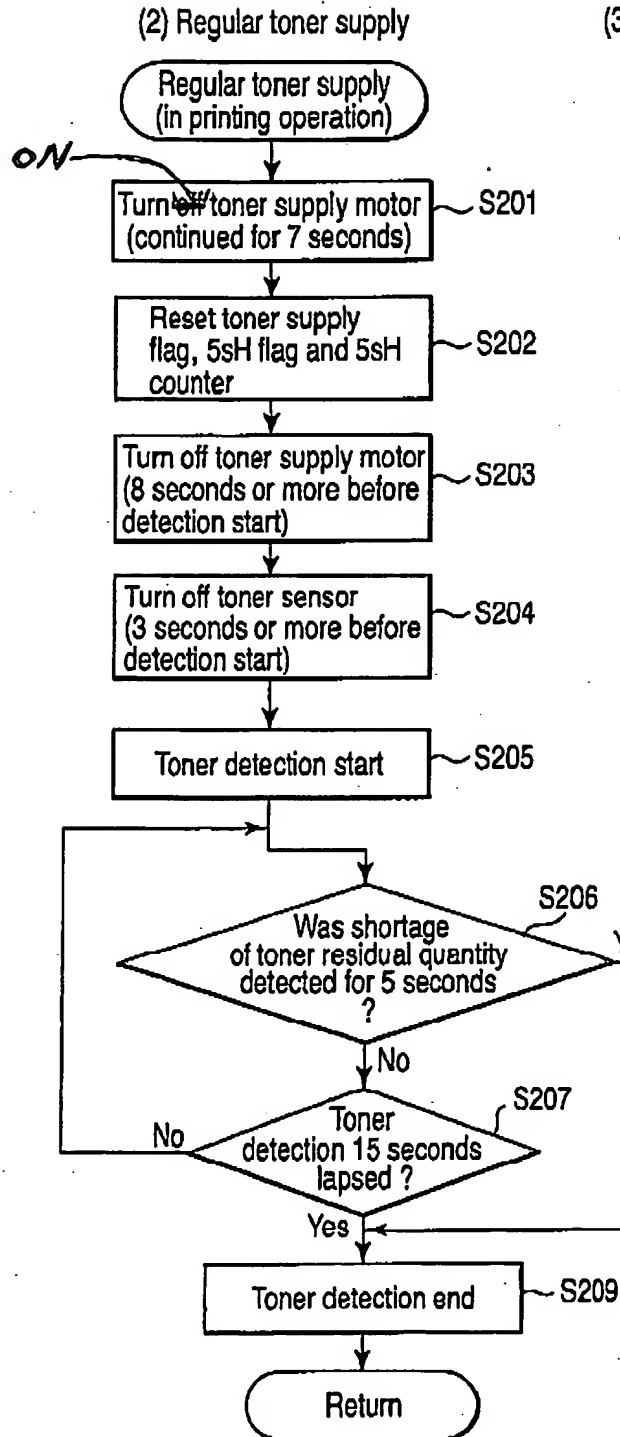


FIG. 5

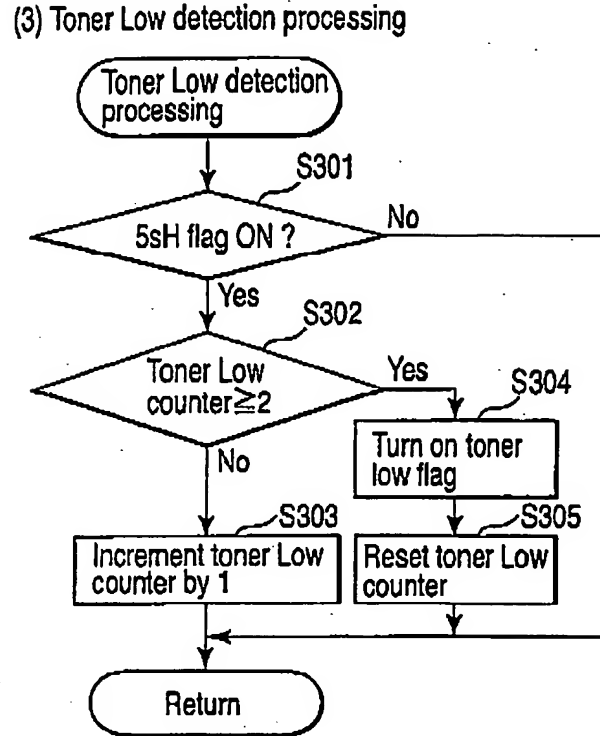


FIG. 6